

REMARKS

The objection to claim 18 under 37 CFR 1.75(c) has been removed by cancellation of that claim.

The independent claims 1 and 37 stand rejected under 35 USC 103 over Palmasi et al in view of Faykish et al. In support of the rejection of claim 1, the examiner asserts that Palmasi et al discloses all of the features recited in the present claim 1, except for the features that:

- (a) the first layer coating is substantially inadherable to the carrier film,
- (b) the UV rotary letter press ink of the first layer comprises a short chain polymeric substance, having a three-dimensional lattice structure, and
- (c) the affixing material of the second layer comprises a UV rotary letter press ink, comprising a long chain polymeric substance, having a two-dimensional structure.

The examiner suggests that the patterned layer 12 of Palmasi et al is an apt counterpart for the first layer specified in claim 1 and that the holographic image layer 16 of Palmasi et al is an apt counterpart for the second layer specified in claim 1. Palmasi et al discloses that the alleged counterpart for each of the first and second layers comprises a UV resin based on acrylic, urethane and/or epoxy chemicals.

The examiner further asserts, without qualification or reservation, that Palmasi et al discloses that the UV resin of the patterned layer 12 comprises a UV rotary letter press ink and refers in support of this assertion to column 5, lines 15-20. Applicant respectfully disagrees. The only disclosure at column 5, lines 15-20 of Palmasi et al regarding the nature of the patterned layer 12 is that mentioned above.

Palmasi et al discloses that the patterned layer 12 may be applied by a gravure roller that is brought into contact with the liquid resin (or varnish, as the resin is otherwise referred to by Palmasi et al) while it is in a continuously rotating mode. Thus, Palmasi et al may be interpreted as disclosing that the method of printing is rotogravure,

rather than rotary letter press, which in the field of printing is a different process, requiring a different ink type and formulation. The examiner has not shown that an ink which is used in a rotogravure process would be suitable for use in a rotary letter press process, such that the ink would be considered to be a rotary letter press ink.

The examiner extrapolates MPEP 2113, which relates to product by process claims, in support of the contention that for the purposes of examination, a product by process limitation is not limited to the manipulation of the recited steps, but only to the structure implied by the steps, and that, in this case, the recited steps imply a structure of a substrate with a polymeric layer on specific sections of the substrate. Applicant submits, however, that the examiner's reliance on MPEP 2113 is misplaced. Claim 1 is not a product by process claim, i.e. a claim to a product made by a specified process, but is a strict product claim in which the nature of the first layer coating and the nature of the second layer material happen to be specified by reference to terms having process implications. The presence of material limitations having product limitations does not transform every product claim into a product by process claim. Thus, MPEP 2113 notes that terms such as "welded" and "etched" are capable of construction as structural limitations.

Applicant submits that MPEP 2113 is not applicable to every product limitation that is expressed by words having process implications. For example, a product limitation to a radiation-cured resin, as in claim 1 of Palmasi et al, implies a process limitation but also implies structural limitations with respect to the cured material and the uncured material. Applicant submits that the examiner may not properly invoke MPEP 2113 to transform the limitation in claim 1 to a UV rotary letter press ink into a product by process limitation that allows the examiner to meet the limitation by mere disclosure of a substrate with a polymeric layer on specific sections of the substrate.

The examiner acknowledges that Palmasi et al does not disclose that the alleged counterpart for the second layer of claim 1 comprises a UV rotary letter press ink but evidently considers that this limitation can be ignored for the same reason that the

limitation of claim 1 to the first layer coating comprising a UV rotary letter press ink is ignored.

The term “rotary letter press” is a qualification, description and limitation of a type of ink. In this case, the term “rotary letter press ink” implies that the ink is suitable for use in a rotary letter press, and thus imposes a limitation on the type of ink – it is not any ink, but a specific type of ink, having a structure or composition which makes it suitable for use in the aforesaid process. In other words, claim 1 is directed to a security arrangement which, as an essential part of its structure, includes a first layer comprising a rotary letter press ink (i.e. an ink having a structure or composition suitable for use in a rotary letter press process), and a second layer also comprising a rotary letter press ink (i.e. an ink having a structure or composition suitable for use in an rotary letter press process). Applicant submits that a person skilled in the art would understand the limitation imposed by these terms, and realise that this distinguishes the ink structurally and/or compositionally from other inks which might be suitable for use in other processes. Thus the term “rotary letter press ink” as used in claim 1 provides a structural limitation specific to each of the inks, rather than a more general process limitation to the overall structure of the security arrangement.

As mentioned above, Palmasi et al discloses a security label in which the materials used are discussed as being suitable for rotogravure printing. Faykish et al discloses, in Example 1, a security laminate in which the materials are suitable for use in a flexographic printing press, a somewhat different process to a rotary letter press. To illustrate the differences, in Example 1 of Faykish et al, the materials used are a water based ethylene in the low adhesion first layer coating, and a water based urethane with pearlescent logos for the second layer. As these materials are water based, they are not suitable for UV curing, but rather have to be heat cured. To a skilled person, these materials would not be usable in the security arrangement of the present claimed subject matter, and could not be combined with the disclosure of Palmasi et al to arrive at the security arrangement of the present claimed subject matter.

The examiner suggests that Faykish et al discloses a security laminate having a first layer polymeric coating containing non affixing regions, the first layer being substantially inadherable to the carrier film. In support of this suggestion, the examiner cites Figure 2 #12. However, Figure 2 is merely described as showing the security laminate after an attempt to delaminate the document, and this figure cannot reasonably be interpreted as disclosing a first layer which is substantially inadherable to the carrier film, but only a first layer which is less adherable to the carrier film than to the emblem layer 14 and the adhesion layer 16.

Faykish et al discloses that the bond between the first layer and the protective coating must be relatively strong in order to provide a laminated document with good durability (column 3, lines 28-30), and that, although this bond is the least tenacious, it must be strong enough to provide a durable laminate (column 6, lines 45-48). Taken in combination with the teaching of Palmasi et al, which discloses in column 3, lines 66-67 that the patterned layer 12 “is chosen to bond strongly to the protective layer”, the skilled person would be taught from the combination of these documents that it is necessary to provide a first layer which bonds to the protective or carrier layer, and would be taught away from providing a first layer which is substantially inadherable to the carrier film.

As noted above, the examiner acknowledges that Palmasi et al does not disclose

“the UV rotary letter press ink of the first layer comprising a short chain polymeric substance, having a three-dimensional lattice structure, and the affixing material comprising a UV rotary letter press ink, comprising a long chain polymeric substance, having a two-dimensional structure”

As also noted above, Palmasi et al discloses that the materials of the patterned layer 12 and holographic image layer 16 may be UV curable resins. Palmasi et al also states that the type of UV material is dictated by the substrate on which it is placed and the final properties. The examiner asserts that it would have been obvious to a person

of ordinary skill in the art to select a short chain polymeric substance and a long chain polymeric substance to arrive at the present claimed subject matter. However, there is no teaching, motivation or suggestion given in Palmasi et al or any of the other cited prior art documents which would prompt the skilled person to select the particular combination of the above features, and the examiner has not provided any evidence of this, or evidence that this combination would have been obvious to pursue because of general knowledge available to a person of ordinary skill in the art. Specifically, the examiner has not pointed out any suggestion on the record that a particular combination of substrate and desired final properties dictates that the patterned layer 12 should comprise a short chain polymeric substance and the holographic image layer 16 should comprise a long chain polymeric substance having a two-dimensional structure.

Palmasi et al itself teaches away from the above combination of materials. In column 5, lines 6 and 7, Palmasi et al states that it is advantageous if the patterned layer and the image layer are formed of “exactly the same UV cured resin.” Thus, Palmasi et al does not suggest that one resin should be a short chain polymeric substance having a three-dimensional lattice structure and the other resin should be a long chain polymeric substance having a two-dimensional structure.

At column 5, lines 40-41, Palmasi et al indicates that the UV resins typically contain oligomers. The accepted chemical definition of an oligomer is: “a polymer or polymer intermediate containing relatively few structural units” (Merriam Webster Online Dictionary); “a compound intermediate between a monomer and a polymer, normally having a specified number of units between about five and a hundred” (Wikipedia). Palmasi et al contains no teaching, motivation or disclosure relating to long chain polymeric substances, or the use of such substances in a security arrangement, or the specific combination defined in claim 1.

Furthermore, there is no teaching, motivation or disclosure in the cited prior art documents regarding the specific structure of the short and long chain polymeric substances, i.e. suggesting that the short chain polymeric substance has a three-

dimensional lattice structure and the long chain polymeric substance has a two-dimensional structure. In connection with the limitation of claim 1 that the short chain polymeric substance has a three-dimensional lattice structure and the long chain polymeric substance has a two-dimensional structure, the examiner asserts that it is a matter of obvious design choice within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. The record does not establish that a short chain polymeric substance having a three-dimensional lattice structure and a long chain polymeric substance having a two-dimensional structure would be suitable for the patterned layer 12 and holographic image layer 16 respectively of Palmasi et al.

In view of the forgoing, applicant submits that the claimed subject matter, as defined in claim 1, is not disclosed or suggested by the cited references, whether taken singly or in combination. Therefore, claim 1 is patentable and it follows that the dependent claims 2, 3, 6-16, 19, 20 and 22-36 also are patentable.

The arguments presented above in support of claim 1 are applicable to claim 37, except for the arguments regarding the UV rotary letter press ink of the first layer comprising a short chain polymeric substance having a three-dimensional lattice structure and the UV rotary letter press ink of the second layer comprising a long chain polymeric substance having a two-dimensional structure. Therefore, claim 37 is patentable and it follows that the dependent claims 38 and 39 also are patentable.

Respectfully submitted,

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